

Global Climate Change Overview

- Human-related pollution is contributing to a warming of the world.
 - Some warming will occur next century due to current and past pollution.
 - More warming will occur unless actions are taken now to reduce pollution.
- Warming likely to have mostly adverse impacts on climate, with significant loss of life (IPCC, 1995)
- Need to aggressively promote energy efficiency in the near-term and low carbon fuels in the longer-term

The Greenhouse Effect is not all Bad

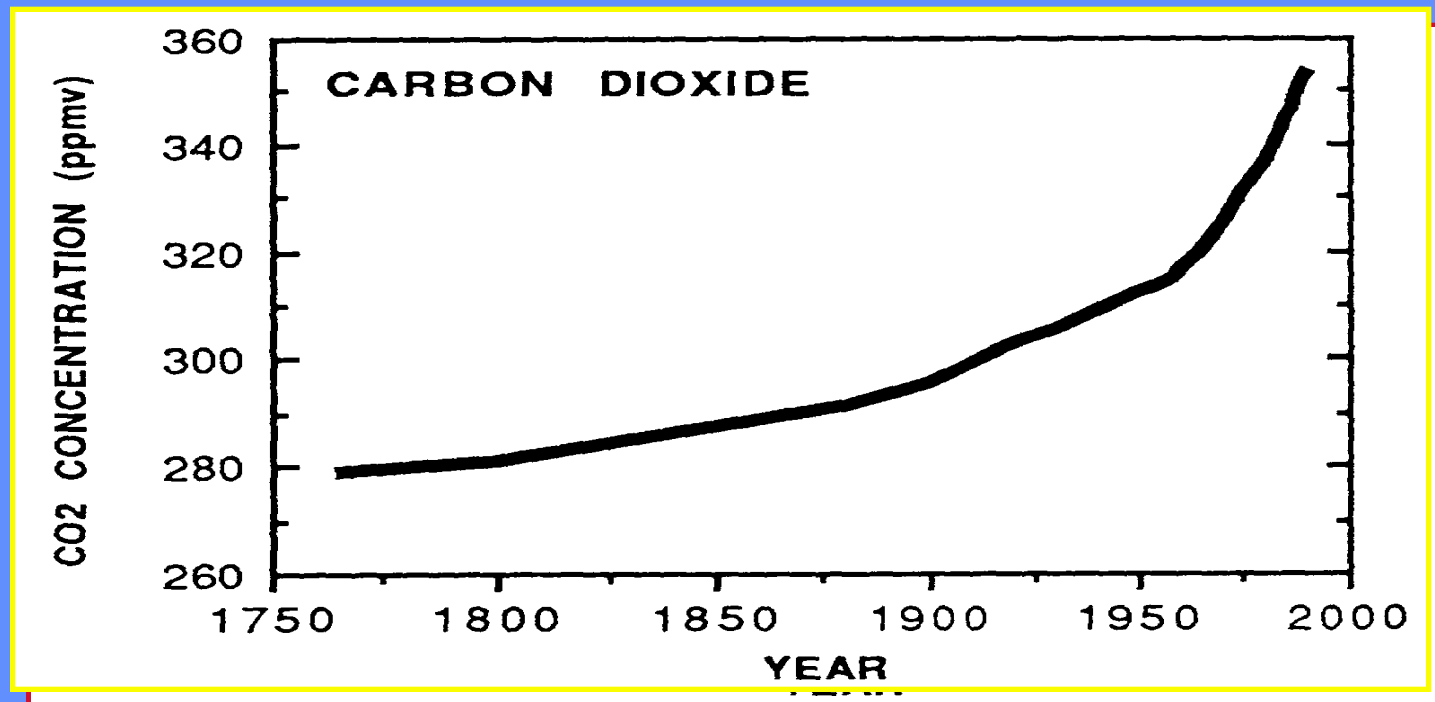
- Naturally occurring “greenhouse gases,” such as carbon dioxide and methane, trap heat in the lower atmosphere, warming the planet.



- Without these gases the earth would be extremely cold and life as we know it would not exist.

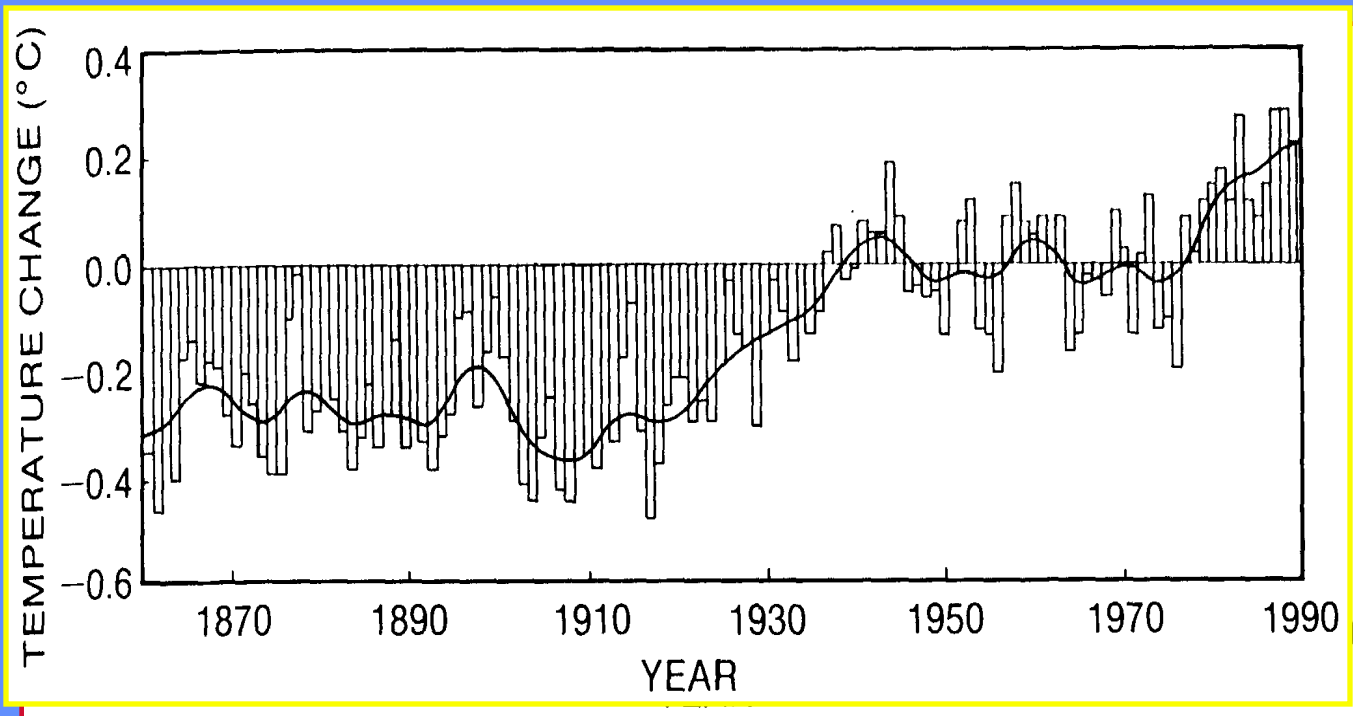
Humans Pushing the Greenhouse Effect Beyond Natural Limits

- Greenhouse gas emissions largely from the burning of fossil fuels for transportation and electricity are causing atmospheric buildup.



Science is Clear: We are Heating Up

- Planet's temperature has increased about 1 °F since the late 1800's.
- Ten warmest years over this time have occurred since 1980.



Science is Clear (cont.)

- Balance of evidence suggests a discernible human influence on global climate (IPCC, 1995).
- The planet's temperature is rising “at a rate faster than anything seen in the last 10,000 years” (IPCC, 1995).

IPCC represents work of
over 2500 scientists worldwide

Potential Impacts of Climate Change

- Increased frequency of severe weather -- hurricanes, droughts, heat waves.
- Coastal flooding due to melting of ice sheets and sea level rise.
- Increased evaporation, threatening drinking supplies, fishing, hydropower, and irrigation.
- Billions in investment needed to cope with the negative impacts of global climate change.

Necessary Actions Underway to Slow Climate Change

- International efforts are underway to reduce emissions of greenhouse gases -- U.N. Convention on Climate Change.
- U.S. is implementing the Climate Change Action Plan to reduce emissions.
 - will decouple carbon emissions from energy use
 - profitable emission reductions through improved efficiency
 - large reductions achievable at low cost, if not a savings